

Appl. No. 10/612,769
Amdt. dated September 6, 2006
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2162

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REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed June 8, 2006. Claims 1-29 were pending in the present application. This Amendment amends claims 1, 3-4, and 13-14; and cancels claims 7-12, 15, and 20-29; leaving pending in the application claims 1-6, 13-14, and 16-19. Reconsideration of the rejected claims is respectfully requested.

I. Rejection under 35 U.S.C. §103

Claims 1, 3-5, 7-18, and 20-28 are rejected under 35 U.S.C. §103(a) as being obvious over *Barrick* (US 6,625,647) in view of *Chen* (US 5,793,976). Applicants respectfully submit that these references do not teach or suggest each element of these claims.

For example, Applicants' claim 1 as amended recites a method for assembling timing data for each layer in a multi-layer server environment, comprising:

- generating a first HTML based request;
- depositing a time of generation of the first HTML based request in one or more hidden data fields associated with the first HTML based request;
- forwarding the first HTML based request to one or more servers that each deposit an arrival time and a departure time for the first HTML based request in the one or more hidden data fields associated with the first HTML based request;**
- generating an HTML based response in response to receiving the first HTML based request;
- depositing a time of generation of the HTML based response in one or more hidden data fields associated with the HTML based response;**
- transferring the arrival times, the time of generation of the HTML based request, and the departure times to the one or more hidden data fields associated with the HTML based response;**
- forwarding the HTML based response to one or more servers that each deposit an arrival time and a departure time in the one or more hidden data fields associated with the HTML based response;**
- receiving the HTML based response to a browser for displaying the HTML based response, the browser operable to store a time of arrival and a time of display for the HTML based response;
- generating a second HTML based request, the second HTML based request including the times of generation, arrival times, departure times, and time of display for the first HTML based request and HTML based response in one or more hidden data fields associated with the second HTML based request**

(*emphasis added*). Further, Applicants' claim 4 as amended further recites:

- performing analysis on the times of generation, arrival times, departure times, and time of display in the database to **determine a time of delay at each server and at the browser** for the

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first HTML based request and the HTML based response, the one or more servers including at least one of an application server and a database server

Such limitations are neither taught nor suggested by *Barrick* and *Chen*.

Barrick teaches a system for measuring the download time of a Web page experienced by a user (col. 2, lines 10-12). A browser agent initiates the sending of an HTTP GET request, logs a time corresponding to the sending, and then measures a download time interval that is the difference between the time of sending and the subsequent loading of the Web page by the browser (col. 2, lines 28-34). The browser agent then initiates the sending of a modified HTTP GET request including a performance parameter indicative of the measured download time interval (col. 2, lines 35-38).

Barrick does not teach or suggest the forwarding of an HTML request to servers that each deposit an arrival time and a departure time, as *Barrick* only records the time of sending a request and of loading a Web page in response to a request at the browser. *Barrick* does not teach or suggest the depositing of arrival and departure times in a response and request at each server as in Applicants' claim 1.

Barrick also does not teach or suggest transferring the arrival times and departure times of each server for the request (as *Barrick* does not teach these at all) and the time of generation of the request to an HTML based response that is sent back to the browser in response to the initial request. *Barrick* teaches placing timing information in a modified HTTP GET request, but does not teach or suggest transferring information from an HTTP request from a browser to an HTTP response to be sent to a browser.

Barrick does not teach or suggest the forwarding of the HTML response to servers that each deposit an arrival time and a departure time. *Barrick* does not teach or suggest the depositing of arrival and departure times in a response and request at each server as in Applicants' claim 1. Further, *Barrick* does not teach the depositing of such information in a response, instead teaching the placing of timing information in a modified request.

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Barrick also does not teach or suggest a browser operable to store a time of arrival and a time of display for the HTML based response, whereby the timing performance of the browser itself can be determined.

Barrick also does not teach or suggest generating a second HTML based request that includes the times of generation, arrival times, departure times, and time of display for the first HTML based request and HTML based response, which allows for the calculation of delay or timing information at each server for the request and response, as well as the delay or timing information of the browser itself. *Barrick* instead teaches including information regarding the timing difference between the sending of an HTTP request and the subsequent loading of the requested Web page.

Chen does not make up for these deficiencies in *Barrick* with respect to Applicants' claim 1 as amended. *Chen* is directed to monitoring of a packet-switched network connection, wherein each intermediate node of the network can be monitored to determine a network quality of service (col. 4., lines 26-56). Individual packets routed by a network can have timestamp information added thereto by the intermediate nodes in order to determine node-to-node delay across the network (col. 4, line 57-col. 5, line 9). This method requires that each intermediate node have specific capabilities including local processing of management packets and local measurement of packet and delay loss (col. 7, lines 17-27). This is different from what is being accomplished in Applicants' claim 1 and the claims that depend therefrom, where each layer in a multi-layer system, including the browser, any intermediate servers, a Web server, an application server, and/or a Web server, each can include timing information in both a request and a corresponding response, so that the delay at each component and/or each layer of a request and response can be determined, in order to determine exactly where and to what extent certain delays occur.

As with *Barrick*, *Chen* does not teach or suggest the transferring of arrival and departure times for each server, including application and/or database servers, from a request into a response that is sent back to a browser. *Chen* also does not teach or suggest a browser operable to store a time of arrival and a time of display for the HTML based response, whereby the timing

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performance of the browser itself can be determined. *Chen* also does not teach or suggest generating a second HTML based request that includes the times of generation, arrival times, departure times, and time of display for the first HTML based request and HTML based response, which allows for the calculation of delay or timing information at each server for the request and response, as well as the delay or timing information of the browser itself. *Chen* determines delays for packets at various switching nodes in a network, and is not concerned with delays experienced by browsers rendering an HTML page or a database server retrieving information in response to a SQL query, for example. As such, *Chen* cannot render obvious Applicants' claim 1 or the claims that depend therefrom, either alone or in combination with *Barrick*. Applicants' claim 13 as amended recites limitations that similarly are neither taught nor suggested by these references, such that claim 13 and the claims that depend therefrom cannot be rendered obvious by *Barrick* and *Chen*.

Claim 2 is rejected under 35 U.S.C. 103(a) as being obvious over *Barrick* in view of *Chen* and further in view of *Fish* (US 2004/0111394). Claim 2 depends from claim 1, which is not rendered obvious by *Barrick* and *Chen* as discussed above. *Fish* does not make up for the deficiencies in *Barrick* and *Chen* with respect to these claims. *Fish* teaches the use of hidden fields in an HTML document for storing debug information (paragraphs [0009]-[0010]), and is cited as teaching the displaying of these hidden data fields to a user (OA p. 10). *Fish* does not, however, teach or suggest the transferring of arrival and departure times for each server, including application and/or database servers, from a request into a response that is sent back to a browser. *Fish* also does not teach or suggest a browser operable to store a time of arrival and a time of display for the HTML based response, whereby the timing performance of the browser itself can be determined. *Fish* does not teach or suggest generating a second HTML based request that includes the times of generation, arrival times, departure times, and time of display for the first HTML based request and HTML based response, which allows for the calculation of delay or timing information at each server for the request and response, as well as the delay or

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timing information of the browser itself. As such, *Fish* cannot render obvious Applicants' claims 1 or 2, either alone or in any combination with *Barrick* and *Chen*.

Claims 6 and 29 are rejected under 35 U.S.C. 103(a) as being obvious over *Barrick* in view of *Chen* and further in view of *Engel* (US 2004/0246996). Claim 6 depends from claim 1, which is not rendered obvious by *Barrick* and *Chen* as discussed above. Claim 29 has been canceled. *Engel* does not make up for the deficiencies in *Barrick* and *Chen* with respect to these claims. *Engel* teaches synchronization across communication devices (paragraphs [0005]-[0006], and is cited as teaching the synchronizing of servers (OA p. 10). *Engel* does not, however, teach or suggest the transferring of arrival and departure times for each server, including application and/or database servers, from a request into a response that is sent back to a browser. *Engel* also does not teach or suggest a browser operable to store a time of arrival and a time of display for the HTML based response, whereby the timing performance of the browser itself can be determined. *Engel* also does not teach or suggest generating a second HTML based request that includes the times of generation, arrival times, departure times, and time of display for the first HTML based request and HTML based response, which allows for the calculation of delay or timing information at each server for the request and response, as well as the delay or timing information of the browser itself. As such, *Engel* cannot render obvious Applicants' claims 1 or 6, either alone or in any combination with *Barrick* and *Chen*.

Claim 19 is rejected under 35 U.S.C. 103(a) as being obvious over *Barrick* in view of *Chen* and further in view of *Blythe* (US 2004/0139433). Claim 19 depends from claim 13, which is not rendered obvious by *Barrick* and *Chen* as discussed above. *Blythe* does not make up for the deficiencies in *Barrick* and *Chen* with respect to these claims. *Blythe* teaches improving the performance of multi-threaded servers by distributing the workload over a number of available thread pools or resources, such as by classifying each received request and assigning the request to a pool or resource based on the classification and execution time for such a classification (paragraphs [0013]-[0024]), and is cited as teaching the use of application servers in a distributed

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environment (OA. p. 11). *Blythe* does not, however, teach or suggest the transferring of arrival and departure times for each server, including application and/or database servers, from a request into a response that is sent back to a browser. *Blythe* also does not teach or suggest a browser operable to store a time of arrival and a time of display for the HTML based response, whereby the timing performance of the browser itself can be determined. *Blythe* also does not teach or suggest generating a second HTML based request that includes the times of generation, arrival times, departure times, and time of display for the first HTML based request and HTML based response, which allows for the calculation of delay or timing information at each server for the request and response, as well as the delay or timing information of the browser itself. As such, *Blythe* cannot render obvious Applicants' claims 13 or 19, either alone or in any combination with *Barrick* and *Chen*.

Applicants therefore respectfully request that the rejections with respect to pending claims 1-6, 13-14, and 16-19 be withdrawn.

II. Amendment to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter.

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CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,


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